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The Development of Molecular Gastronomy as a Subject Discipline at the Dublin Institute of Technology

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Róisín Burke, Pauline Danaher and Mark Traynor

Development of Molecular Gastronomy as a Subject Discipline in DIT

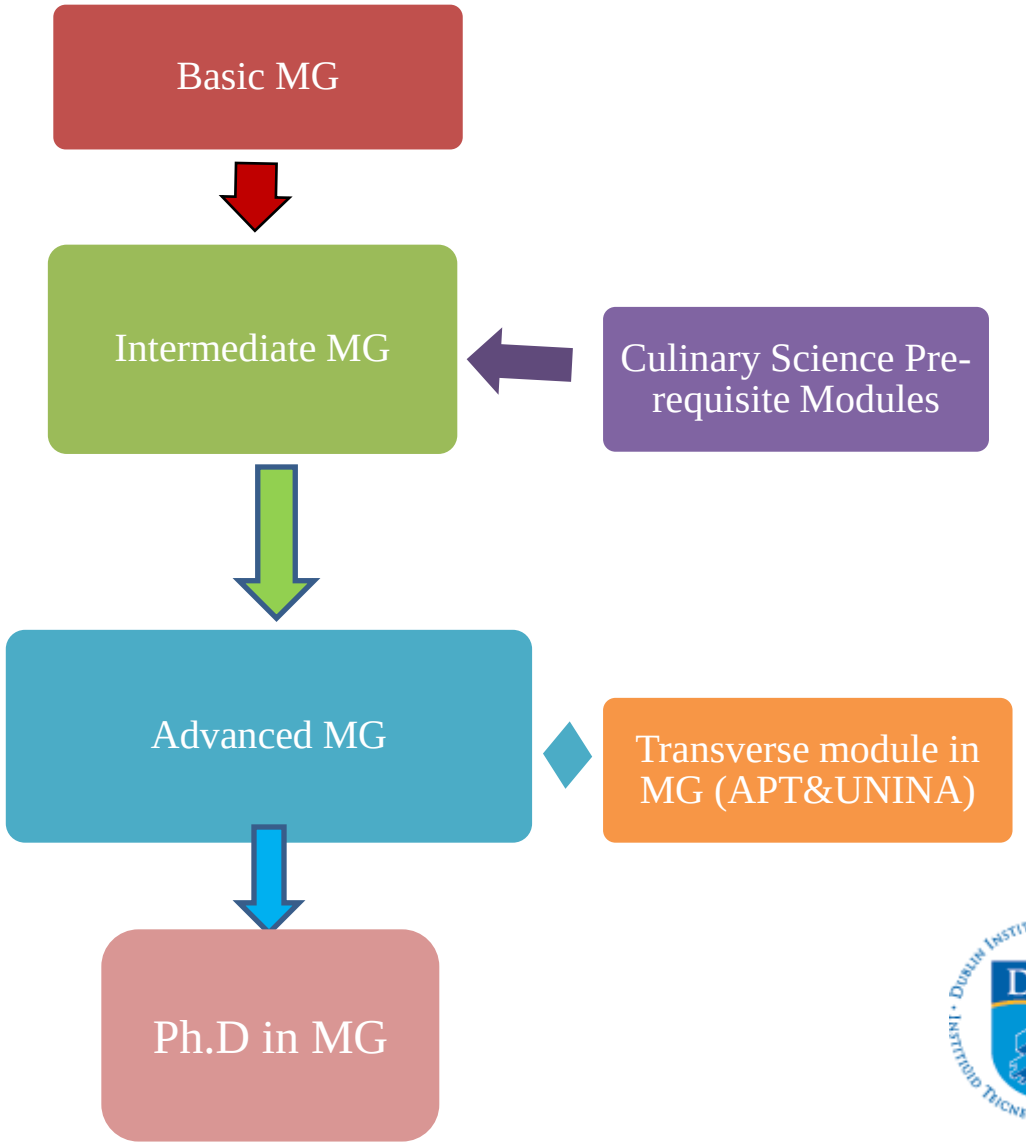
- Two day workshop in Molecular Gastronomy
- Two seminars in DIT on Molecular Gastronomy by Co-founder Dr. Hervé This
- Writing and validating modules in Molecular Gastronomy at basic, intermediate and advanced educational levels
- Getting started

Molecular Gastronomy Workshop in DIT: Making Ice-cream the new fashioned way

Fruits with an extra zing

Joana makes some caviar during a two day molecular gastronomy workshop in DIT

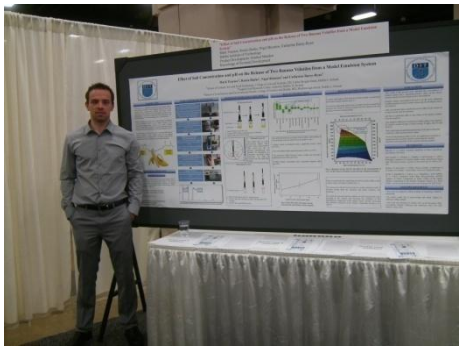
Molecular Gastronomy in DIT



Module Learning Outcomes

Fundamental Molecular Gastronomy (Level 6)	Intermediate Molecular Gastronomy (Level 8)	Advanced Molecular Gastronomy (Level 9)
• Demonstrate know-how and skills in the science of food which is prepared in the kitchen. • Apply knowledge and skills when developing food products. • Work in an organised manner as part of a team in the kitchen. • Evaluate and learn from feedback in lectures and practicals. • Reflect on and discuss information received in class relating to Molecular Gastronomy.	• Demonstrate the application of scientific and gastronomic knowledge and skills. • Apply concepts, theories and analysis in the development of novel recipes, dishes and food and beverage products.	• Critically evaluate the fundamental scientific and gastronomic theories of Molecular Gastronomy. • Produce a novel and innovative dish/cocktail using ingredients and techniques associated with Molecular Gastronomy. • Develop new skills to a high level including novel techniques

Application of Molecular Gastronomy in DIT



Research

Food Product Development

Molecular Gastronomy

General Public

Media

Great British Menu, BBC2, Newspapers and Journals

Intermediate Module in Molecular Gastronomy

Deconstructed Fruit Salad
By David Smith (Student of the Intermediate Molecular Gastronomy Module, 2011, BA in Culinary Arts, DIT)

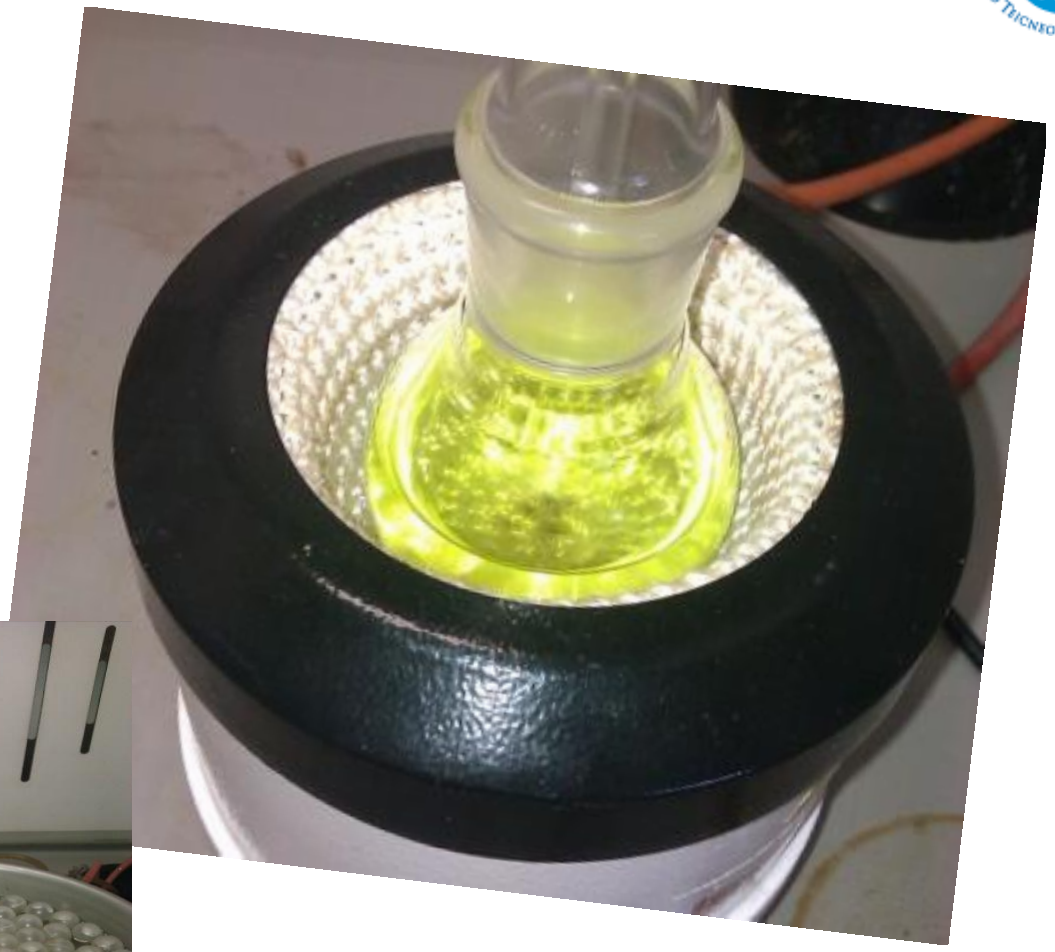
Classical Irish traditional dishes with a modernist twist.

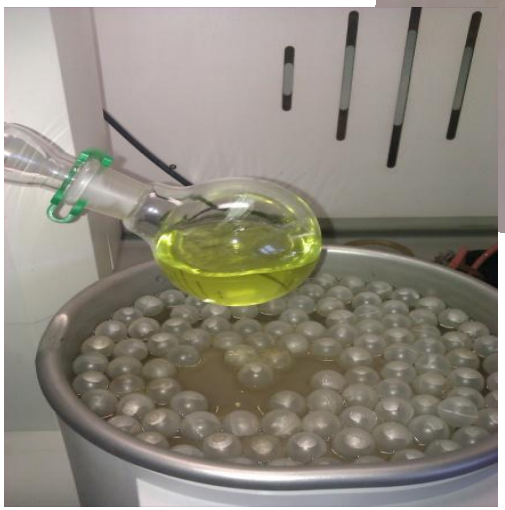
A sensorial blend of tastes, textures, colour and aromas.

Aperitif : Oysters three ways with Guinness

Scientific Aspect

Extraction of seaweed colour using a Soxhlet apparatus and rotary evaporation.





Main Dish: Scallop with cauliflower black pudding and scallop purée

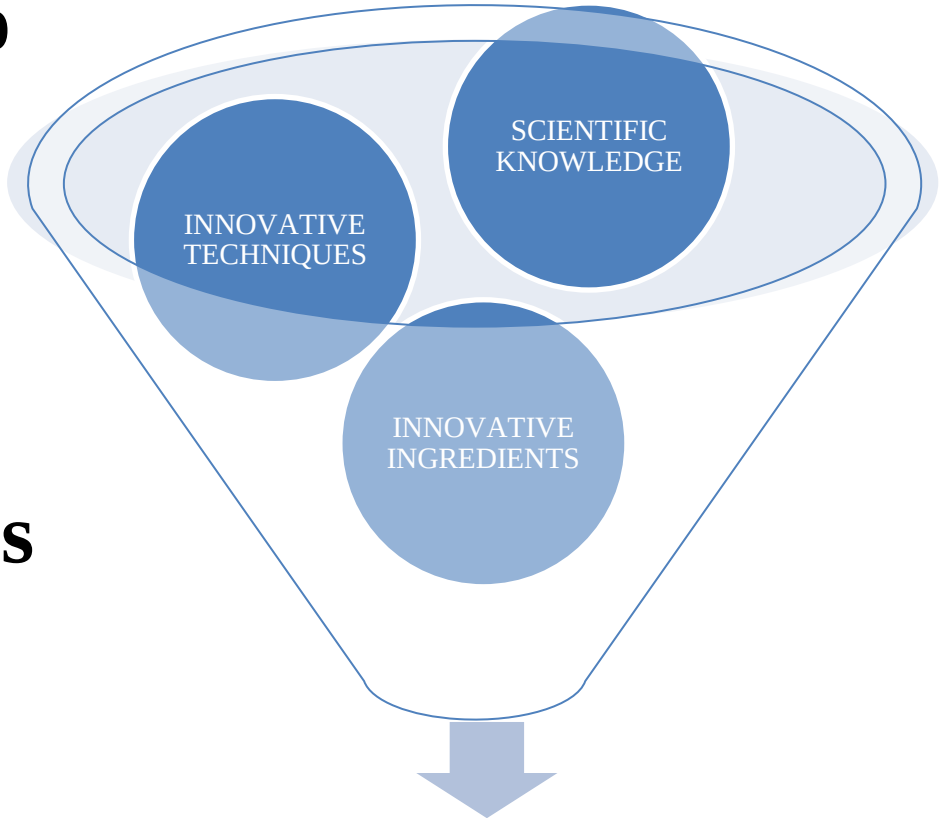
- ***Scallop purée***
- ***White pudding scallop, made with cream, white pudding and gelatine***
- ***Black pudding made with Cauliflower, squid ink, agar, gelatine, pearl barley, bread crumbs and butter***
- ***Onion glass***

Hugh Higgins receives first prize in the education section of the 7th Competition of Sciences and Cuisine from Dr. Hervé This

`Edible' at The Science Gallery, TCD

PhD in Molecular Gastronomy

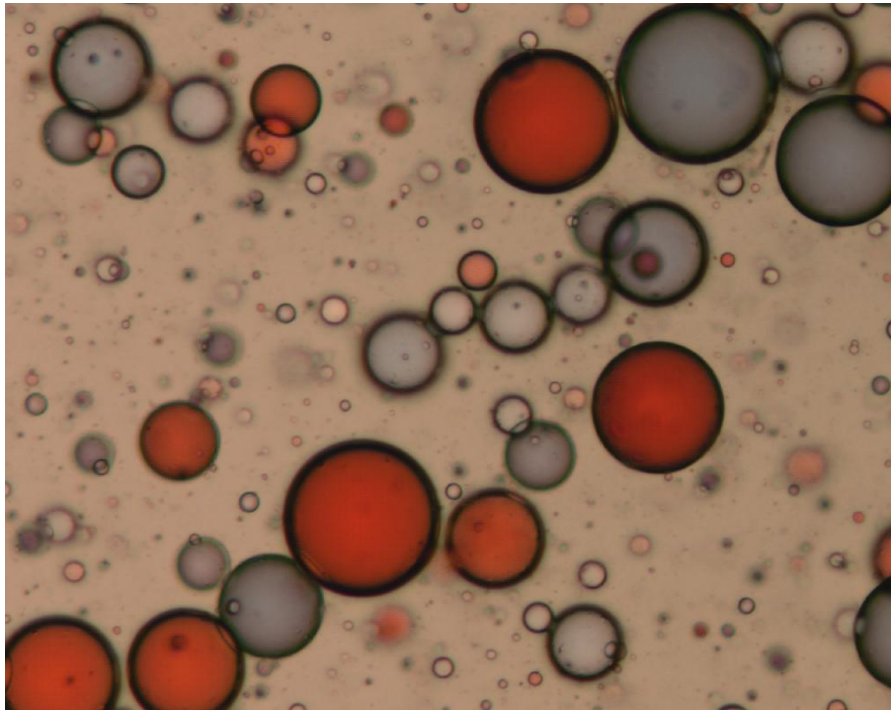
- **An Investigation into the Development of Innovative Food Products using Molecular Gastronomy Theories**



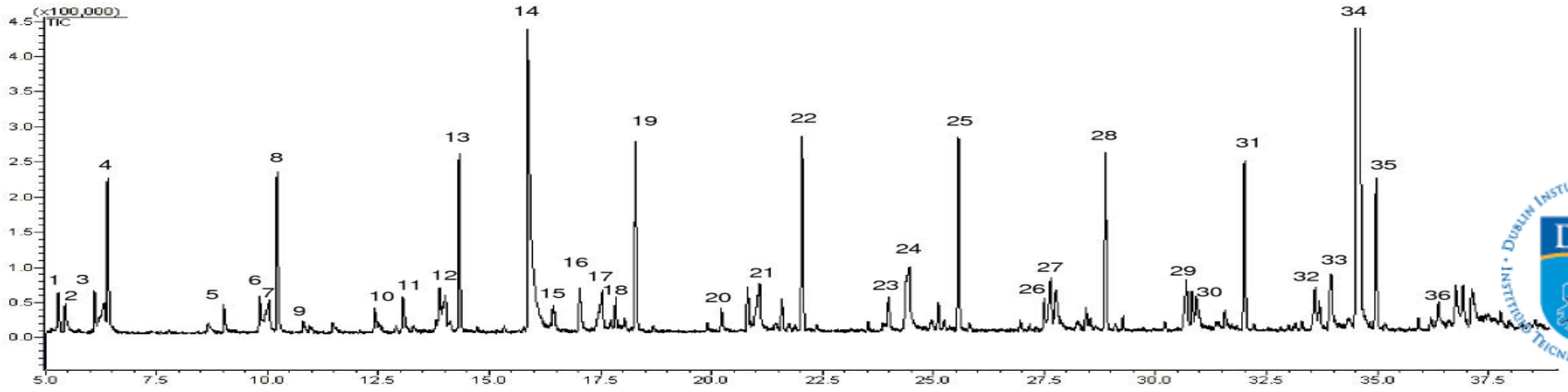
- Mark Traynor,
- Dr. Róisín Burke
- and Dr. Catherine Barry-Ryan

Aims and Objectives of research project

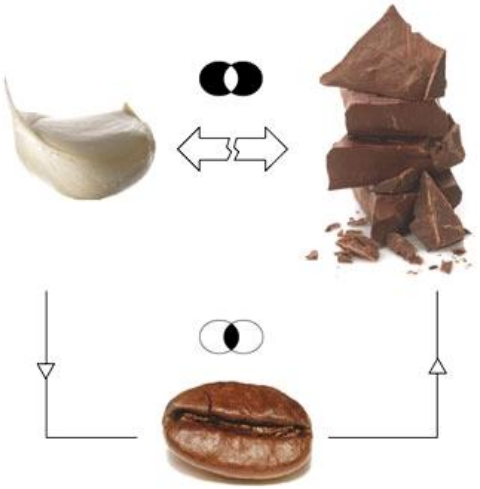
Optimisation of dispersion model system formation



Optimisation of flavour volatile release from the dispersion model system.

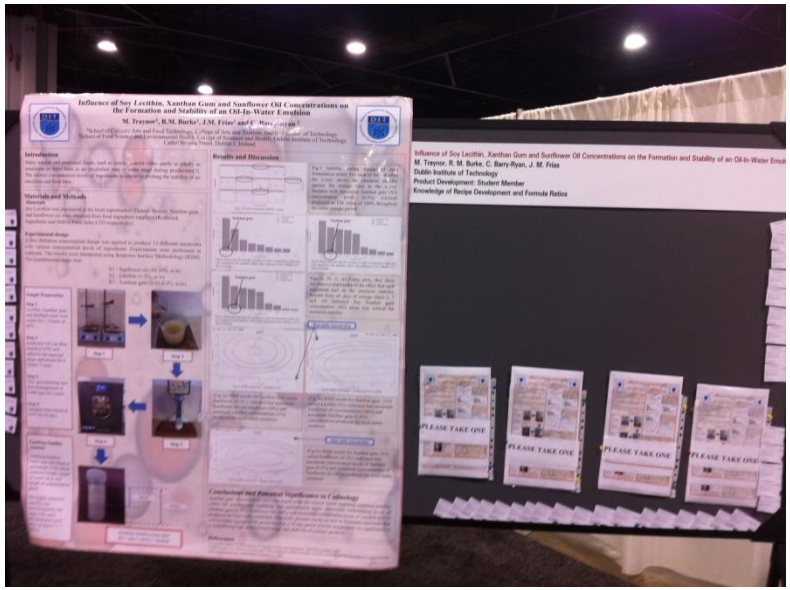


Investigation of novel flavour combinations.

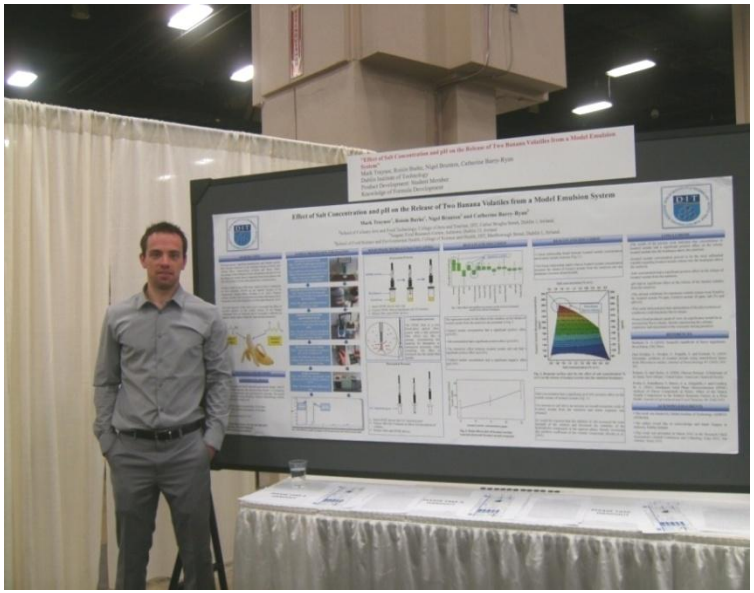


Utilisation of technologies and innovative techniques to produce novel food product.

Research Chefs Association Conference



Atlanta, Georgia, March 2011



San Antonio, Texas, March 2012

Research Chefs Foundation scholarship 2012

Latest Developments

- Transverse Molecular Gastronomy module between DIT, AgroParisTech and University of Naples. – **A module on the Erasmus Mundus Master's Programme in Food Innovation and Product Design**

Erasmus Mundus Masters Students some of whom will take the transverse module in Molecular Gastronomy with DIT, AgroParisTech and University of Naples